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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,222	10/23/2001	Osvaldo M. Colavin	99-RB-183	3541
30428	7590	06/15/2005	EXAMINER	
STMICROELECTRONICS, INC. MAIL STATION 2346 1310 ELECTRONICS DRIVE CARROLLTON, TX 75006			VIEAUX, GARY	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 10/053,222	Applicant(s) COLAVIN ET AL.	
	Examiner Gary C. Vieaux	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 2, 12 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-11, 14 and 16-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
6) <input type="checkbox"/> Other: _____ |
|---|--|

DETAILED ACTION

Change of Examiner

5 The prosecution of this application has been transferred to Examiner Gary C. Vieaux from the docket of Examiner Jeremy R. Elder. Any inquiry concerning this or earlier communications should be directed to the current Examiner of record. Current contact information is provided in the last section of this communication.

Amendment

10 The Amendment filed on February 9, 2005 has been received and made of record. In response to the first office action, the Specification, the Drawing, and Claims 1, 3-6, 11, 13-14, 16 and 18-19 have been amended. Additionally, Claims 2, 12, and 15 have been cancelled, and Claim 22 has been added.

Response to Amendment

15 In response to Applicant's amended Drawings, the Examiner finds the amended figures 10, 13 and 14 to address the previous inconsistencies, and therefore, the objections to figures 10, 13 and 14 of the Drawings are hereby withdrawn.

20 In response to Applicant's amended Specification, the Examiner finds the amendment directly addresses the previous inconsistencies, and therefore, the objection to the Specification is hereby withdrawn.

In response to the objection to claim 4, the Examiner finds the amended claim 4 to include proper dependency, and therefore, the objection to claim 4 is hereby withdrawn.

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Response to Arguments

Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20

Claims 1, 3-10, 14 and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takiguchi et al. (US 6,549,681) in view of Parulski et al. (US 6,812,961.)

25

Regarding claim 1, Takiguchi teaches a method for storing a plurality of still images to form a panoramic image in which image data is stored in a JPEG data format (col. 12 line 61 – col. 13 line 10.) Takiguchi further teaches the storage of additional image related data such as photographic dates and image sequence numbers (col. 13 lines 11-37.) However, Takiguchi is silent as to storing the additional data in a field reserved for at least one of comments and extensions.

Nevertheless, Parulski discloses specifics relating to storage of metadata, such as image capture dates, lens f/numbers, other camera settings and comments, in conjunction with a JPEG image file (Exif - col. 4 lines 35-43.) It would have been obvious to one of ordinary skill in the art at the time of the invention to include additional data relating to an image as taught by Parulski, with the images to form a panoramic image as taught by Takiguchi, so that image related data is stored in direct association with the image; data which may then be employed in the later stitching of the images, such as image sequence information or f/numbers.

Regarding claim 3, Takiguchi and Parulski disclose all the limitations of claim 3 (see the 103(a) rejection to claim 1 supra), including wherein image storage includes the JPEG format ('681 – col. 13 line 2.)

Regarding claim 4, Takiguchi and Parulski disclose all the limitations of claim 4 (see the 103(a) rejection to claim 1 supra), including wherein images are stored in a non-volatile memory ('961 – col. 4 lines 12-30.)

Regarding claim 5, Takiguchi and Parulski disclose all the limitations of claim 5 (see the 103(a) rejection to claim 1 supra), including wherein panoramic parameters are stored in a comment field of an image format ('961 – col. 4 lines 35-43.)

Regarding claim 6, Takiguchi and Parulski disclose all the limitations of claim 6 (see the 103(a) rejection to claim 1 supra), including wherein the panoramic parameters are stored in a marker segment of a JPEG image format ('961 – col. 4 lines 35-43, in which Exif, Extended Interchange Format, directly provides for marker storage of information.)

Regarding claim 7, Takiguchi and Parulski disclose all the limitations of claim 7 (see the 103(a) rejection to claim 1 supra), including storing an index value representing a sequence number ('681 – col. 13 lines 35-36.)

5 Regarding claim 8, Takiguchi and Parulski disclose all the limitations of claim 8 (see the 103(a) rejection to claim 1 supra), including storage of focal length ('961 – col. 4 lines 35-43 in which the f-number (focal ratio) expresses the diameter of the diaphragm aperture in terms of the effective focal length of the lens.)

Regarding claim 9, Takiguchi and Parulski disclose all the limitations of claim 9 (see the 103(a) rejection to claim 1 supra), including retrieval ('681 – col. 15 lines 4-9) and stitching of one or more images to form a panoramic image using previously stored parameters ('681 – col. 15 lines 17-22, in which sequence number is used to determine the stitching mode.)

Regarding claim 10, Takiguchi and Parulski disclose all the limitations of claim 10 (see the 103(a) rejection to claim 9 supra), including decoding the images (inherent in order to be displayed) and down sampling the one or more images to fit a given display ('681- col. 15 lines 59-60.)

Regarding claim 14, Takiguchi and Parulski disclose all the limitations of claim 14 in the form of a device employed in the method of claim 1 supra (see the limitations of claim 1 supra, in addition to figures 4 and 5 of '681.)

20 Regarding claims 14 and 16-21, although the wording is different, the material is considered substantively equivalent to claims 1 and 3-8, respectively, as discussed above.

Regarding claim 22, Takiguchi and Parulski disclose all the limitations of claim 22 (see the 103(a) rejection to claim 1 supra), including teaching the alignment of a current image with a prior image by using a preview strip ('961 – figs. 18 and 19, col. 16 lines 53-58.)

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Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takiguchi et al. (US 6,549,681) in view of Parulski et al. (US 6,812,961), in further view of Examiner's Official Notice.

Regarding claim 11, Takiguchi and Parulski disclose all the limitations of claim 11 (see the 103(a) rejection to claim 1 supra) except for expressly disclosing the programming instructions being contained on a computer readable storage medium.

Nevertheless, Official Notice is taken that a program of instructions, executable by a machine and programmable directly into a machine, are easily transferred to a computer readable storage medium; a concept that is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have transferred the program of instructions, as taught by Takiguchi and Parulski, to a computer readable storage medium in order to increase the portability of the program from machine to machine.

Regarding claim 13, Takiguchi, Parulski and the Official Notice regarding a computer readable storage medium provide a teaching of all the limitations of claim 13 (see the 103(a) rejection to claim 11 supra) including storing the images using the JPEG format ('681 – col. 13 line 2.)

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Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

5 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary C. Vieaux whose telephone number is 571-272-7318. The examiner can normally be reached on Monday - Friday, 8:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 571-272-7308. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Art Unit: 2612

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

- 5 For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gary C. Vieaux
Examiner
Art Unit 2612

10 Gcv2


AUNG MOE
PRIMARY EXAMINER